



## LETTER TO THE EDITOR

### Confusion is in the air about “Endobronchial ultrasound” by Anantham et al

I read with interest the overview on endobronchial ultrasound by Anantham et al.<sup>1</sup> Although I concur with most of medical information, I would like to take the opportunity to comment on some technical aspects that might seem misleading to pulmonologists keen in setting up EBUS service. These concerns include procedure time, complications and learning curve.

The authors commented that radial ultrasound merely added 3 min or less to the procedure based on study by Herth et al.<sup>2</sup> However, they did not state that for all patients undergoing EBUS procedures performed by Herth et al, they were intubated with rigid bronchoscope and completely sedated. Also, in another article from the same author the mean time for EBUS and TBNA was 5.7 min when only one lymph node was targeted.<sup>3</sup> Thus, when sampling the total mediastinum the time added should be higher. In our practice we perform the procedures under local anesthesia with or without midazolam, and our experience shows that under expert hands, a modest estimate is addition of 15 min to total procedural time (with sampling of all the nodes) rather than 3 min as indicated by the authors.

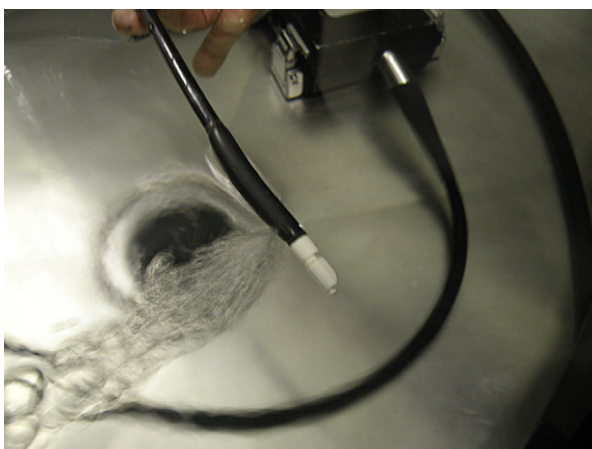


Figure 1



Figure 2

Complications frequently reported were pneumothorax and bleeding. However I am sure for operators who have been performing EBUS, the most important complication is damage to the endoscope (see Figs. 1 and 2) when not properly handled. Damages add considerably to the costs of scope maintenance which are skimmed over in the enthusiasm to embrace this new technology.

Training in EBUS is of paramount importance not only in assuring the high yields reported in the literature, again performed by experts but in our opinion, EBUS has a steep learning curve if performed under local anesthesia and conscious sedation. Although it is reported that proficiency in EBUS can be achieved after 10 procedures,<sup>4</sup> the authors fail to emphasize that this proposed number is arbitrary and cannot be generalized since competency depends on operator's knowledge in ultrasound interpretation, dexterity and skill.

In response to the segment on role of ultrasound for imaging airway mucosa, radial EBUS is invented for depth invasion therefore it is confusing that authors should attempt to compare radial EBUS with autofluorescence (AF) and Narrow Band Imaging (NBI) for detection of early airway lesions.

## References

1. Anantham D, et al. Endobronchial ultrasound. *Respir Med* 2009.

2. Herth FJ, et al. Conventional vs endobronchial ultrasound-guided transbronchial needle aspiration: a randomized trial. *Chest* 2004;**125**(1):322–5.
3. Herth, et al. Ultrasound-guided transbronchial needle aspiration: an experience in 242 patients. *Chest* 2003;**123**(2): 604–7.
4. Groth, et al. Endobronchial ultrasound-guided fine needle aspiration of mediastinal lymphnodes: a single institution's learnin experience. *Ann Thorac Surg* 2008;**86**(4):1104–10.

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